



86024 Rec'd NOV 17 1986

# United States Department of the Interior

## GEOLOGICAL SURVEY

Office of Energy and Marine Geology  
Branch of Atlantic Marine Geology  
Woods Hole, MA 02543 U.S.A.  
617/548-8700

### MEMORANDUM

Date: November 13, 1986

To: B. Halley, H. Knebel, G. Hill, T. Aldrich, S. Barton,  
J. Newell, T. O'Brien, G. Sexton, N. Soderberg,  
B. Henry (DMA), T. Cocke (State Dept.)

From: D. Folger *[Signature]*

Subject: Cruise Report M/V STARELLA

Vessel: M/V STARELLA

Cruise No.: 86-Test

Parent Project: Defense Mapping Agency Gravity

Funding Agency: Defense Mapping Agency

Funding Amount: \$185.00/mile

Contract No.: --

Contract Start/End Dates: 1 Oct 86 - open

Area of Operation: Western Caribbean

Cruise Start/End Dates: Ports: 22 October 1986 ~ Roosevelt Roads 295-298  
25 October 1986 - Kingston

Chief Scientist: Barry Irwin/John Gann

Cruise Data Curator: Barry Irwin

Scientific Party: Affiliation: Barry Irwin

John Gann

USGS-Menlo

C. Gilbert

USGS-Menlo

Jim Dodd

USGS

Dave Folger

USGS

C. Gard

DMA

Consultants: Jim McCullough

WHOI

G. Forrestier

John Chance Assoc.

T. Carpenter

Sperry

Ship's Captain: John Nichols

Purpose: The cruise was a transit from the eastern Caribbean work area to the western Caribbean work area during which extensive testing of new navigation equipment was conducted and one gravity line run.

Navigation Techniques: Included the Magnavox 5000 (GPS) system, the STARFIX commercial satellite system, the MK 29 gyro, and transit satellite.

Equipment: LaCoste & Romberg marine gravimeter

Tabulated Information:

Days at sea: 4

Kilometers of continuous data: 107 km of required gravity data

Narrative:

Set up and integration of the Atlantic Marine Geology navigation system with the gravity meter and with the new STARFIX commercial satellite navigation system was completed during the transit. Results acquired during 6 crossings of the same feature provided excellent results (within 2 mgal) indicating the system shakedown successful.

Attachment: Page-size trackchart